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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,740	12/27/2001	Yuhei Kobayashi	217734US6	2050

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1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 06/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

.10/026,740

Applicant(s)

KOBAYASHI, YUHEI

Examiner

Jorge L. Ortiz-Criado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 9-12 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 is/are allowed.
- 6) ☒ Claim(s) 5-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/27/02.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group Ia, claims 1-4, in the reply filed on 05/19/2005 is acknowledged. The traversal is on the ground(s) that the searches for the different Groups are overlapping.

a. This is not found persuasive because:

Groups I and II are classified differently, 369/44.23 as compared to 369/112.02. The restriction between Group 1a and 1b is withdrawn.

The requirement is still deemed proper and is therefore made FINAL.

Claims 9-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in the reply filed on 05/19/2005.

b. The restriction between Groups Ia and Ib is withdrawn.

### ***Claim Objections***

2. Claim 4 is objected to because of the following informalities: In claim 4, first line of the claim "apparatus according to claim 1" should be "apparatus according to claim 2".

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "the astigmatic aberration", "the coma aberration" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 5-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Minemura et al. J.P. 08-212583.

Regarding claim 5, Minemura et al. discloses an optical disc recording and/or reproducing apparatus comprising:

a disc rotating mechanism for selectively loading thereon a first optical disc having a first index of double refraction and a second optical disc having a second index of double refraction larger than said first index of refraction (see abstract; See drawing 7, #1402 );

disc discriminating means for discriminating the sort of the optical disc loaded on said disc rotating mechanism(see drawing 7, re# 1443);

a light source for radiating a light beam of a sole wavelength; an objective lens for converging the light beam radiated from said light source for illuminating the converged light beam on the optical disc loaded on said disc rotating mechanism (see Drawing 4; paragraph [0022]-[0023];

aberration producing means for producing the aberration in the light beam radiated from said objective lens to said optical disc; light receiving means for receiving the reflected light from said optical disc (see Drawing 4, ref# 120; paragraph [0022]-[0024]); and

control means for driving said aberration producing means depending on the sort of said optical disc discriminated by said disc discriminating means for correcting the aberration produced in the light beam to record and/or reproduce information signals for said optical disc (see Drawing 7ref# 1440; [0027]-[0029]) .

Regarding claim 6, Minemura discloses wherein said aberration producing means is formed by a liquid crystal device having a plurality of electrode patterns, and wherein said control means controls the driving voltage applied to said electrode patterns to correct the

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aberration produced in the light beam converged on said optical disc (See Drawing 5; paragraph [0024])

Regarding claim 8, Minemura discloses wherein said control means controls the driving voltage applied to said electrode patterns so as to adjust the astigmatic aberration or the coma aberration if the optical disc is verified by said disc discriminating means to be the first disc or the second disc, respectively (See paragraph [0024]-[0026])

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Minemura et al. J.P. 08-212583 in view of Ootaki et al. 5,936,923.

Minemura et al. discloses correcting aberration, and expressly discloses astigmatic aberration/"spherical aberration".

But, does not expressly disclose wherein the aberration corrected by said control means comprises the coma aberration.

However this feature is well known in the art and is evidenced by Ootaki et al, which discloses an optical disc recording and/or reproducing apparatus comprising a disc rotating mechanism for selectively loading thereon a first optical disc having a first index of double refraction and a second optical disc having a second index of double refraction larger than said first index of refraction, an aberration producing means for producing the aberration in the light beam radiated from said objective lens to said optical disc wherein the aberration corrected by said control means comprises the coma aberration and astigmatic aberration.

It would have been obvious to one with an ordinary skill in the art at the time of the invention to include the aberration correcting means that includes coma and astigmatism aberration as taught by Ootaki et al., in order to improve the performance of the optical pickup by correcting the two different types of aberrations.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

*J.P.08-212583/U.S. 5,910,937 3 to Akiba et al* is pertinent because teaches an optical disc recording and/or reproducing apparatus comprising a disc rotating mechanism for selectively loading thereon a plurality of sorts of optical discs having reciprocally different values of the track pitch of the recording track and hence different values of the recording density, disc discriminating means for discriminating the sort of the optical disc loaded on said disc rotating mechanism; a light source for radiating a light beam, an objective lens for converging the light beam radiated from said light source for irradiating said optical disc; aberration producing means

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for generating the aberration in a light beam radiated from said objective lens to said optical disc, light receiving means for receiving the reflected light from said optical disc; and control means for driving said aberration producing means depending on the sorts of said optical disc discriminated by said disc discriminating means for correcting different sorts of the aberration produced in said light beam to record and/or reproduce the information signals for said optical disc.

*U.S. Patent Nos. 6,532,202 to Wada et al; 6,078,554 to Ootaki et al.* are pertinent because teaches aberration producing means for generating the aberration in a light beam radiated from said objective lens to said optical disc, wherein said aberration producing means is formed by a liquid crystal device having a plurality of electrode patterns.

***Allowable Subject Matter***

7. Claims 1-4 are allowed.

The following is an examiner's statement of reasons for allowance:

As in claim 1, the prior art of record fails to teach or fairly suggest the followings:

a light source for radiating a light beam having a wavelength of approximately 780 nm and an objective lens for converging the light beam radiated from said light source for irradiating said optical disc, having a numerical aperture (NA) of approximately 0.62.

The features indicated above, in combination with the others elements of the claim, are not anticipated by, nor made obvious over, the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue



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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

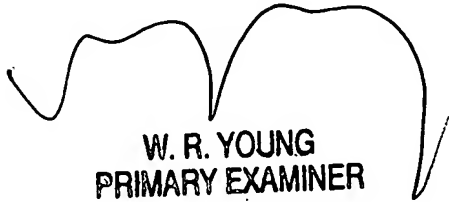
*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L. Ortiz-Criado whose telephone number is (571) 272-7624. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm), Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne R. Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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W. R. YOUNG  
PRIMARY EXAMINER